

**To:** CN=Steve Vandegrift/OU=ADA/O=USEPA/C=US@EPA[]  
**Cc:** CN=Ann Keeley/OU=ADA/O=USEPA/C=US@EPA;CN=David Jewett/OU=ADA/O=USEPA/C=US@EPA;CN=Dominic Digiulio/OU=ADA/O=USEPA/C=US@EPA;CN=Holly Ferguson/OU=CI/O=USEPA/C=US@EPA;CN=Lauren Drees/OU=CI/O=USEPA/C=US@EPA[]; N=David Jewett/OU=ADA/O=USEPA/C=US@EPA;CN=Dominic Digiulio/OU=ADA/O=USEPA/C=US@EPA;CN=Holly Ferguson/OU=CI/O=USEPA/C=US@EPA;CN=Lauren Drees/OU=CI/O=USEPA/C=US@EPA[]; N=Dominic Digiulio/OU=ADA/O=USEPA/C=US@EPA;CN=Holly Ferguson/OU=CI/O=USEPA/C=US@EPA;CN=Lauren Drees/OU=CI/O=USEPA/C=US@EPA[]; N=Holly Ferguson/OU=CI/O=USEPA/C=US@EPA;CN=Lauren Drees/OU=CI/O=USEPA/C=US@EPA[]; N=Lauren Drees/OU=CI/O=USEPA/C=US@EPA[]  
**Bcc:** []  
**From:** CN=Rick Wilkin/OU=ADA/O=USEPA/C=US  
**Sent:** Mon 7/23/2012 9:12:21 PM  
**Subject:** Re: Follow up to PI response to Pavillion Phase V ADQ Database 'LIVE QLOG NRMRL', View 'QA Reviews' by TLP', Document 'Phase V ADQ for Ground-Water Investigation in Pavillion, Wyoming'

Actions/Changes made:

1. Observation #2c: Dissolved Ag does not require the K2 flag. This only affects the total Ag ( digested samples). Removed K2 flag from Dissolved Ag.
2. Observation #3: The K2 flag was applied appropriately in most cases, but some were not included: All K2 flags added.  
 EPAMW01-0412-4: 2 BE, Tri- and Tetraethylene glycol need K2 flags  
 EPAMW01-0412: 2 BE, Tri- and Tetraethylene glycol need K2 flags  
 EPAMW01d-0412: Trichloroethylene glycol needs K2 flag
3. Observation #11a: Shaw re-issued the reports today.
4. Observation #12: This Observation applies to not only the Total Metals but also the Dissolved Metals (this was overlooked in the audit). Dissolved Cd results should also be Flagged K3 and the J2 flag applies to the dissolved counterparts of the metals listed.  
 K3 added to Dissolved Cd. J2 added to Dissolved Cd, Hg, Pb, Sb, Th, Ti, U.

It was also noted in the Metals worksheet, columns DL and DN, that the headers should be for ICP-MS QC, not ICP-OES QC. Changed to ICP-MS.

5. Observation #13: It was noted that the recommendation for flagging total metals with J2 was not done. This may be determined at higher level reviews to be required. Ok, I stand by the technical evaluation presented in the ADQ response.
6. Observation #14: There are some issues that need followed-up with the Las Vegas lab. I will send you a list to forward to the lab. Email sent to LV requesting information.

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Richard T. Wilkin, Ph.D.  
 Geochemist  
 U.S. Environmental Protection Agency  
 National Risk Management Research Laboratory  
 919 Kerr Research Drive  
 Ada, OK 74820

off: 580-436-8874  
wilkin.rick@epa.gov  
www.epa.gov/ada/

From: Steve Vandegrift/ADA/USEPA/US  
To: Rick Wilkin/ADA/USEPA/US@EPA  
Cc: Ann Keeley/ADA/USEPA/US@EPA, David Jewett/ADA/USEPA/US@EPA, Dominic Digiulio/ADA/USEPA/US@EPA, Holly Ferguson/CI/USEPA/US@EPA, Lauren Drees/CI/USEPA/US@EPA  
Date: 07/23/2012 02:36 PM  
Subject: Follow up to PI response to Pavillion Phase V ADQ

Rick-

I have reviewed your responses to the ADQ and the summary spreadsheet as it relates to the issues identified in the ADQ and have the following comments. See the attached ADQ report for a description of the Observations.

1. Observation #2c: Dissolved Ag does not require the K2 flag. This only affects the total Ag ( digested samples).
2. Observation #3: The K2 flag was applied appropriately in most cases, but some were not included:  
EPAMW01-0412-4: 2 BE, Tri- and Tetraethylene glycol need K2 flags  
EPAMW01-0412: 2 BE, Tri- and Tetraethylene glycol need K2 flags  
EPAMW01d-0412: Trichloroethylene glycol needs K2 flag
3. Observation #11a: Shaw re-issued the reports today.
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It was also noted in the Metals worksheet, columns DL and DN, that the headers should be for ICP-MS QC, not ICP-OES QC.

5. Observation #13: It was noted that the recommendation for flagging total metals with J2 was not done. This may be determined at higher level reviews to be required.
6. Observation #14: There are some issues that need followed-up with the Las Vegas lab. I will send you a list to forward to the lab.

Steve

Steve Vandegrift, QA Manager  
Ground Water and Ecosystems Restoration Division  
NRMRL/ORD/USEPA  
P.O. Box 1198  
919 Kerr Research Dr.  
Ada, OK 74820  
(580)436-8684 (voice)  
(580)436-8528 (fax)  
vandegrift.steve@epa.gov

From: Rick Wilkin/ADA/USEPA/US  
To: Steve Vandegrift/ADA/USEPA/US@EPA

Cc: Ann Keeley/ADA/USEPA/US@EPA, David Jewett/ADA/USEPA/US@EPA, Dominic Digiulio/ADA/USEPA/US@EPA, Holly Ferguson/CI/USEPA/US@EPA, Lauren Drees/CI/USEPA/US@EPA

Date: 07/22/2012 05:13 PM

Subject: Re: Quality Assurance Review for Phase V ADQ for Ground-Water Investigation in Pavillion, Wyoming

Hi Steve - ADQ response and revised QA/QC Appendix are attached.

The L:\ drive contains the most recent files and the revised summary data spreadsheet (v2). An Archive folder was created and it now contains previous review versions of the QA/QC Appendix and the summary spreadsheet.

Steve - I would like to discuss with you about contacting the NERL/LV lab to request additional information as described in the ADQ.

Thanks,  
Rick

[attachment "Pavillion Phase V ADQ report\_rtw 7-22-2012.docx" deleted by Rick Wilkin/ADA/USEPA/US] [attachment "PhaseV QAQC7-22-2012 v1.docx" deleted by Rick Wilkin/ADA/USEPA/US]

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Richard T. Wilkin, Ph.D.  
Geochemist  
U.S. Environmental Protection Agency  
National Risk Management Research Laboratory  
919 Kerr Research Drive  
Ada, OK 74820

off: 580-436-8874  
wilkin.rick@epa.gov  
www.epa.gov/ada/

From: Steve Vandegrift/ADA/USEPA/US  
To: Rick Wilkin/ADA/USEPA/US@EPA, Dominic Digiulio/ADA/USEPA/US@EPA, David Jewett/ADA/USEPA/US@EPA, Ann Keeley/ADA/USEPA/US@EPA, Holly Ferguson/CI/USEPA/US@EPA, Lauren Drees/CI/USEPA/US@EPA

Cc: Steve Vandegrift/ADA/USEPA/US@EPA

Date: 07/19/2012 07:13 PM

Subject: Quality Assurance Review for Phase V ADQ for Ground-Water Investigation in Pavillion, Wyoming

Below is a link to the Quality Assurance Review form.

Would have been copied to: Steve Vandegrift